POOBLUSE, DESCOR

igure 1A

960	GCTTCGTCTA	CGGTGGAAGA	ACATTATTGA	GCATCACAAA	TCAATGGATT ATCAGCCAAC GCATCACAAA ACATTATTGA CGGTGGAAGA GCTTCGTCTA	TCAATGGATT
006	TGATCCTTTG	TTGAGTATAT	TTAAAAGATC	AGAAAAACTA	GAAACACAAAT TAGCAGAAAA AGAAAAACTA	GAAACACAAT
840	ACAACGCGCC	AACACATTCA	AAGCGCTCGA	GCGCGTAATG	GCCATTGGTG CCCGGGCAGC GCGCGTAATG AAGCGCTCGA AACACATTCA ACAACGCGCC	GCCATTGGTG
780	TGATACAGGA	GGGCGATTTT	AAAGGGAGCG	CGCTAAGGAA	GAAGGTGATA AGTACGGCAA CGCTAAGGAA AAAGGGAGCG GGGCGATTTT	GAAGGTGATA
720	GATGAACCGT	CGTAAAAAG CGGAATGGÌC	CGTAAAAAAG	AGAAACCGCT	AAAGAAGTCA ATCGCTTGAA AGAAACCGCT	AAAGAAGTCA
099	AAAAATCAAA	TTTGAACTAG CAGAAAATGA AAAAATCAAA	TTTGAACTAG	AAGAGATGCT	TATGAAGAGC AAAAAAATT AAGAGATGCT	TATGAAGAGC
009	TTTTTCTATT	ATCAAGGGAA	TIGACGCIGI	AAAAAGTCAA	TGGCGATTGA	GATCATATTT
540	TGAAGTGGTT	CACGATCGGG CATTTGTTGA TGAAGTGGTT	CACGATCGGG	TTTAGTCAGC	AAAAAGAAAC ACGGGTTTAT	AAAAAGAAAC
480	ATATTTGAAG	GGCAGACAAC AAGTGGCTGA	GGCAGACAAC	AGATCTAGCT	GACGAGCCAA CAAATCATTT	GACGAGCCAA
420	TCCTTTAATT	TTTATTGAAG AAAATGCCTT	TTTATTGAAG	AGGTCTTCTT	GAAAAGACGA AAGTTTTATT	GAAAAGACGA
360	TTTCTTCTTT ATCAGGCGGC		TGGCGGCCCT	TGAAGTTTTA	ACGCTTTTAA ACGTTGATCC TGAAGTTTTA	ACGCTTTTAA
300	ACGAGAATTA	GGGAATTAGA	TTTGAACAGT	GGTGACTTCT	ACTTATTATG TCTTACAAGA	ACTTATTATG
240	ACAACAGCTC	CCACAAACAG TIGCAGAAGA ACAACAGCIC	CCACAAACAG	CGTCTATTTT	ATTCTTCATC AAGTCGATTT CGTCTATTTT	ATTCTTCATC
180	CCAAGGAGAG	TTACAAAAAC AGTTGGATTA	TTACAAAAAC	ATTAAGATTG	GGCCGTGGGA AAACAACCTT	GGCCGTGGGA
120	TGGCCGCAAT	TAGGATTGAT	AATTGGAAAT	GATGGATACC	TTTGATCAGG CAAATATCAC GATGGATACC	TTTGATCAGG
09	AGTATTGCTT	ATAATCAAGA	TTTGCCTATG	ACAACTATCT	AIGTCGAAAA TTGAACTAAA ACAACTATCT TTTGCCTATG ATAATCAAGA AGTATTGCTT	ATGTCGAAAA

Figure 1B

IUUSUSEI.UISUDE

1020 1080 1140 1200 1260 1320 1380 1440 1497 GGCTACGAGA AAAATTGGCT ATTTGCGCCA CTTTCTTTTT CAATAACGC GGGAGAATT GITGGAATAA CAGGGAAAAA TGGCTCAGGA AAATCGAGCT TAATTCAGTA TTTATTGGAT AATITITCIG GGGATICAGA AGGCGAAGCC ACTITGGCTC ACCAATIAAC CATITCTIAI GTGCGCCAAG ATTATGAAGA CAATCAAGGA ACTTTATCCG AATTTGCAGA GAAAAATCAG TIAGATTACA CICAATITIT AAATAACITA CGAAAACITG GGAIGGAGCG CGCCGITITC ACTAATCGAA TTGAACAAAT GAGTATGGGG CAACGGAAAA AAGTCGAAGT AGCCAAATCA AATCATCAAC AATTAGAAGC GCTAATCTTA TCTGTGAAGC CTGCAATGCT AGTGATTGAG TIGICICAAT CAGCIGAACI ITAIAITIGG GAIGAACCCC ITAAITACII GGAIGIAIII CATGATGCAC ATTTCATGAA GAAAATAACA GATAAAAAAA TTGTCTTGAA ATCATAA

IUUGUSEI UIIGOE

Figure 2A

DheaganGlualaaanIleThrMetAanThraanTrnI.veI.e.,II.GlvI.e.,IleGlvArcaan	4.0
riienspalimiaasiiileliiimetaspiiiiasiiilpiysueusiyueuliesiyaigasii	† †
GlyArgGlyLysThrThrLeuLeuArgLeuLeuGlnLysGlnLeuAspTyrGlnGlyGlu	9
Ile Leu His Gln Val AspPhe Val TyrPhe ProGln Thr Val Ala Glu Glu Gln Gln Leu	80
ThrTyrTyrValLeuGlnGluValThrSerPheGluGlnTrpGluLeuGluArgGluLeu	100
ThrLeuLeuAsnValAspProGluValLeuTrpArgProPheSerSerLeuSerGlyGly	120
GluLysThrLysValLeuLeuGlyLeuLeuPheIleGluGluAsnAlaPheProLeuIle	140
AspGluProThrAsnHisLeuAspLeuAlaGlyArgGlnGlnValAlaGluTyrLeuLys	160
LysLysLysHisGlyPheIleLeuValSerHisAspArgAlaPheValAspGluValVal	180
AspHisIleLeuAlaIleGluLysSerGlnLeuThrLeuTyrGlnGlyAsnPheSerIle	200
TyrGluGluGlnLysLysLeuArgAspAlaPheGluLeuAlaGluAsnGluLysIleLys	220
LysGluVal Asn ArgLeuLysGluThr Ala ArgLysLysAlaGluTrp Ser Met Asn ArgLysGluVal Asn ArgLysGluThr Ala ArgLysGluThr Ala ArgLysGluVal ArgLysGluVal ArgLysGluThr Ala ArgLysGluVal	240
GluGlyAspLysTyrGlyAsnAlaLysGluLysGlySerGlyAlaIlePheAspThrGly	260
AlaIleGlyAlaArgAlaArgValMetLysArgSerLysHisIleGlnGlnArgAla	280
${\tt 3luThrGlnLeuAlaGluLysGluLysLeuLysAspLeuGluTyrIleAspProLeu}$	300
SerMet Asphirc I poroThrui sui stirathrt siit einthrial Clint siil ein 200	220

BA OF 128 ERRCTASS

Figure 2B

360 440 460 498 480 GlyTyrGluLysAsnTrpLeuPheAlaProLeuSerPheSerIleAsnAlaGlyGluIle 340 AsnPheSerGlyAspSerGluGlyGluAlaThrLeuAlaHisGlnLeuThrIleSerTyr 380 ValArgGlnAspTyrGluAspAsnGlnGlyThrLeuSerGluPheAlaGluLysAsnGln 400 ValGlyIleThrGlyLysAsnGlySerGlyLysSerSerLeuIleGlnTyrLeuLeuAsp LeuAspTyrThrGlnPheLeuAsnAsnLeuArgLysLeuGlyMetGluArgAlaValPhe ThrAsnArg11eG1uG1nMetSerMetG1yG1nArgLysLysValG1uValAlaLysSer LeuSerGlnSerAlaGluLeuTyrIleTrp<u>AspGluProLeuAsnTyrLeuAsp</u>ValPhe AsnHisGlnGlnLeuGluAlaLeuIleLeuSerValLysProAlaMetLeuValIleGlu HisAspAlaHisPheMetLysLysIleThrAspLysLysIleValLeuLysSer

Figure 3A

RY CLASS SUBCLASS

ATGAAAGAGA	TCGTAACATT	ATGAAAGAGA TCGTAACATT AACAAACGTT AGCTATGAAG TAAAGGATCA AACTGTTTTT	AGCTATGAAG	TAAAGGATCA	AACTGTTTTT	09
AAACATGTAA	AAACATGTAA ACGCCAGTGT	TCAGCAAGGA	GATATCATTG	TCAGCAAGGA GATATCATTG GGATTATCGG CAAAAACGGC	CAAAAACGGC	120
GCTGGGAAAT	GCTGGGAAAT CTACGTTGCT	GCACCTCATT	CACAATGACT	TAGCCCCTGC	ACAGGGTCAA	180
ATCCTTCGGA	ATCCTTCGGA AGGATATAAA ACTGGCTTTG	ACTGGCTTTG	GTTGAACAGG	GITGAACAGG AAACCGCGGC GIAIICCIII	GTATTCCTTT	240
GCGGATCAGA	GCGGATCAGA CACCTGCCGA	AAAGAAGTTA	CTGGAGAAAT	CTGGAGAAAT GGCATGTGCC	TCTTCGTGAT	300
TTTCATCAGT	TAAGCGGCGG	TTTCATCAGT TAAGCGGCGG TGAAAACTG AAAGCGCGGGC TGGCGAAAGG ACTATCAGAG	AAAGCGCGGC	TGGCGAAAGG	ACTATCAGAG	360
GATGCAGATC	GATGCAGATC TGCTGCTGTT	AGATGAACCG	AGATGAACCG ACAAACCACC	TTGATGAAAA AAGCTTGCAA	AAGCTTGCAA	420
TTTCTCATCC	AACAGCTGAA	TTTCTCATCC AACAGCTGAA ACATTATAAC GGCACTGTGA	GGCACTGTGA	TICICGITIC	TCACGATCGA	480
TATTTTAG	ACGAAGCCGC	TATTTTTAG ACGAAGCCGC AACAAAATA TGGTCGCTTG AGGATCAGAC GCTGATTGAA	TGGTCGCTTG	AGGATCAGAC	GCTGATTGAA	540
TTCAAAGGGA	TTCAAAGGGA ATTACTCCGG	GTATATGAAG	TTCCGGGAGA AGAAAAGACT	AGAAAAGACT	CACCCAGCAG	009
CGTGAATATG	CGTGAATATG AAAAGCAGCA AAAAATGGTT	AAAAATGGTT	GAACGGATTG	GAACGGATTG AAGCACAAAT GAATGGGCTC	GAATGGGCTC	099
GCTTCTTGGT	GCTTCTTGGT CGGAAAAAGC CCATGCTCAA	CCATGCTCAA	TCGACGAAAA AGGAAGGGTT	AGGAAGGGTT	TAAAGAATAT	720
CACCGGGTAA	CACCGGGTAA AAGCGAAGCG	TACGGATGCC	CAGATAAAAT	CAGATAAAAT CCAAGCAGAA GCGGCTTGAA	GCGGCTTGAA	780
AAAGAGCTTG	AAAGAGCTTG AAAAAGCAAA GGCGGAACCC	GGCGGAACCC	GTTACCCCAG	GITACCCCAG AATATACAGI CCGCITITCA	CCGCTTTTCA	840
ATCGATACAA	ATCGATACAA CCCACAAAAC AGGAAAACGT	AGGAAAACGT	TTTTTAGAAG	TTCAGAATGT	AACAAAAGCG	900
TTTGGAGAAA	GGACTCTCTT	TTTGGAGAAA GGACTCTT TAAAAACGCA AACTTTACAA TTCAGCACGG CGAAAAGGTT	AACTTTACAA	TTCAGCACGG	CGAAAAGGTT	096

IUUBUSEI LUISUOR

Figure 3B

1644				なした。	APPROADE ACABABABA	ATCATCAAG
1620	AAAAGAGCTG	TCAGGCTTTC AATGAGCTTA CGAAACGAAT AAAAGAGCTG	AATGAGCTTA		AAAGGGTATA AGGAGCTTGA	AAAGGGTATA
1560	GCCAAATGAT	GTTTTATGAC	GGAAAGCTCA	AGAAGTGCTG	AAGCTTGAGA CAGAAAGACA AGAAGTGCTG GGAAAGCTCA GTTTTATGAC GCCAAATGAT	AGCTTGAGA
1500	GCTTCGGTTA	AGCGGGAGGA	GAAAGAAATG	CGTTCCTTCA	NICGAAAAGC AGITAAACGA CGIICCIICA GAAAGAAAIG AGCGGGAGGA GCIICGGITA	ATCGAAAAGC
1440	AAACAACGGC	TCGTCATCTC	AACAGTAAAC	AAAAACAACA	CATGACCGAT ACTITCTCGA AAAAACAACA AACAGTAAAC TCGTCATCTC AAACAACGGC	ATGACCGAT
1380	GGCGGTTTCA	GCACATTGCT	CAATACAGCG	AACACTGTCA	CACGCGAAC AGCTGGAAGA AACACTGTCA CAATACAGCG GCACATTGCT GGCGGTTTCA	CACGCGAAC
1320	CGACCTGCCG	GCTGATTTTA GATGAGCCGA CAAACCATCT CGACCTGCCG	GATGAGCCGA		ATTCTGGAGG AAAAAGACGT	TTCTGGAGG
1260	GATGGCATAT	AGATCAAGCT	GAGCGTGTAA	GAGTATGGGT	ACTGAACCGA TCAAGCATAT GAGTATGGGT GAGCGTGTAA AGATCAAGCT GATGGCATAT	ACTGAACCGA
1200	CGCCCAATGG	GTTTTACAGC	AGGCACTTAG	AAATCTGATG	AAAGCAAGGG GGCACGTTCA AAATCTGATG AGGCACTTAG GTTTTACAGC CGCCCAATGG	AAAGCAAGGG
1140	TATTTGAGAA TGAAACATTC	TATTTGAGAA	AGAACAAACA CCGGAAGAGT	AGAACAAACA	SAGGIGITIG AITIGCCIII	SAGGTGTTTG
1080	TTTAACGCAG	ACATCGGCTA	ATGGGTGTCG CCGTCCGCAA ACATCGGCTA	ATGGGTGTCG	BAAACAGCAG AAGGAAGTGT	SAAACAGCAG
1020	TCTGGGACAG	TGAACATCAT	ACGACATTAC	CAGCGGAAAA	SCGATCATAG GCCCCAATGG CAGCGGAAAA ACGACATTAC TGAACATCAT TCTGGGACAG	SCGATCATAG

APPROVED O. .. FIG.
BY CLASS SUBCLASS

IOUSUBEL "OISODE

Figure 4A

09 20 40 80 100 120 160 AspAlaAspLeuLeuLeuLeuAspGluProThrAsnHisLeuAspGluLysSerLeuGln 140 TyrPheLeuAspGluAlaAlaThrLysIleTrpSerLeuGluAspGlnThrLeuIleGlu 180 PheLysGlyAsnTyrSerGlyTyrMetLysPheArgGluLysLysArgLeuThrGlnGln 200 ArgGluTyrGluLysGlnGlnLysMetValGluArgIleGluAlaGlnMetAsnGlyLeu 220 HisArgValLysAlaLysArgThrAspAlaGlnIleLysSerLysGlnLysArgLeuGlu 260 PheHisGlnLeuSerGlyGlyGluLysLeuLysAlaArqLeuAlaLysGlyLeuSerGlu AlaAspGlnThrProAlaGluLysLysLeuLeuGluLysTrpHisValProLeuArgAsp AlaSerTrpSerGluLysAlaHisAlaGlnSerThrLysLysGluGlyPheLysGluTyr PheLeuIleGlnGlnLeuLysHisTyrAsnGlyThrValIleLeuValSerHisAspArg LysGluLeuGluLysAlaLysAlaGluProValThrProGluTyrThrValArgPheSer IleAspThrThrHisLysThrGlyLysArgPheLeuGluValGlnAsnValThrLysAla PheGlyGluArgThrLeuPheLysAsnAlaAsnPheThrIleGlnHisGlyGluLysVal MetLysGluIleValThrLeuThrAsnValSerTyrGluValLysAspGlnThrValPhe AlaGlyLysSerThrLeuLeuHisLeuIleHisAsnAspLeuAlaProAlaGlnGlyGln IleLeuArgLysAspIleLysLeuAlaLeuValGluGlnGluThrAlaAlaTyrSerPhe LysHisValAsnAlaSerValGlnGlnGlyAspIleIleGlyIleIleGlyLysAsnGly

Figure 4B

APPLICATION FOR SULFAMENTS

Alaileile <u>GlyProAsnGlySerGlyLysThrThrLeu</u> LeuAsnIleIleLeuGlyGln 340	340
GluThrAlaGluGlySerValTrpValSerProSerAlaAsnIleGlyTyrLeuThrGln 360	360
GluValPheAspLeuProLeuGluGlnThrProGluGluLeuPheGluAsnGluThrPhe 380	380
LysAlaArgGlyHisValGlnAsnLeuMetArgHisLeuGlyPheThrAlaAlaGlnTrp 400	400
ThrGluProlleLysHis <u>MetSerMetGlyGluArgValLys</u> IleLysLeuMetAlaTyr 420	420
IleLeuGluGluLysAspValLeuIleLeuAspGluProThrAsnHisLeuAspLeuPro 440	440
SerArgGluGlnLeuGluGluThrLeuSerGlnTyrSerGlyThrLeuLeuAlaValSer 460	460
HisAspArgTyrPheLeuGluLysThrThrAsnSerLysLeuValIleSerAsnAsnGly 480	480
IleGluLysGlnLeuAsnAspValProSerGluArgAsnGluArgGluGluLeuArgLeu 500	500
LysLeuGluThrGluArgGlnGluValLeuGlyLysLeuSerPheMetThrProAsnAsp 520	520
LysGlyTyrLysGluLeuAspGlnAlaPheAsnGluLeuThrLysArgIleLysGluLeu 540	540
AspHisGlnAspLysAsp	547